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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,304	11/21/2001	Manfred Ueberschar	VOI0211.US	3003

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EXAMINER

LAMB, BRENDA A

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 01/17/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996304

Applicant(s)

Ueberschar et al

Examiner.

LAMB

Group Art Unit

1734

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on _____.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-23 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-23 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

Office Action Summary

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-16 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al.

Nakamura et al teaches the design of a coating apparatus comprised of a first and second curtain applicator each having a discharge nozzle such as depicted in Figure 4 for discharging an application medium/coating in the form of a curtain into the moving base. Nakamura et al shows a first and second curtain is applied on the moving base but fails to teach spacing between the first and second curtain is within the scope of the claim. However, it would have been obvious to optimize of the Nakamura et al apparatus such that the distance between the first and second curtain are within the scope of the claim in order to apply a second layer of coating over the first layer without an intermediate drying step thereby increasing the productivity of the process.

especially since Nakamura et al teaches at column 7 lines 48-59 that his process does not require the first layer be dried before application of the second layer. With respect to claims 2-12 and 14, the recitation as to the type of application medium dispensed by the curtain coaters does not structurally further limit the apparatus since the coating material is not structurally part of the claimed apparatus. With respect to claim 23, the recitation that the apparatus is configured to process a material web which is a paper web does not structurally further applicant's invention over Nakamura et al since the material being coated is not structurally part of the apparatus and, in any event, Nakamura et al curtain coating system is capable of applying such coating material. With respect to claims 13, 15-16 and 20, Nakamura et al teaches coating is supplied to the curtain coater using a metering pump and Nakamura et al Examples disclose a wide range of coating is applied to the substrate. Therefore, it would have been obvious that each of the Nakamura et al metering pumps is capable of applying coating at the rate set forth in the above cited claims given the disclosed wide range of rate of coating applied to the substrate using the curtain applicator which includes a metering pump and especially since it is known in the art to contend metering pump to provide the desired coating flow rate on the substrate. With respect to claim 2, Nakamura et al apparatus is capable of coating web. The recitation as to the type of material web does not further limit the apparatus since the material web itself not structurally part of the apparatus. With respect to claim 19, Nakamura et al teaches that the height of the curtain depends on the amount of coating solution to be supplied (see column 13, lines 41-45). Nakamura et al fails to teach height within the scope of the claim but the height of the Nakagawa et al curtain coater is adjustable given the range of curtain heights in Example 1 and 2. Therefore, it would have been obvious to optimize the curtain height of the adjustable Nakagawa et al

curtain coater such that it is within the scope of the claim dependant on the amount of coating solution one desires to be applied on the substrate.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al in view of Saito et al.

Nakamura et al is applied for reasons noted above but fails to teach a guide element arranged within the curtain flow path for guiding the curtain along part of the curtain flow path. However, it would have been obvious to modify the Nakamura et al by providing on a guide element which is positioned within the curtain flow path for guiding the curtain along at least part of the curtain flow path since Saito et al teaches doing so to increase uniformity of the coating across the substrate.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al in view of Korokeyi et al.

Nakamura et al s applied for the reasons noted above but fails to teach a pressure differential device arranged between the first and second curtain coater. However, Nakamura et al teaches providing a wind shielding plate upstream of the curtain to prevent disturbance of the free falling curtain. Therefore, it would have been obvious to modify the Nakamura et al by providing a wind shielding means such as taught by between the first and second curtain coater and the Korokeyi et al wind shielding means is a pressure differential device which would provide a vacuum pressure to the web upstream of the Nakamura et al second curtain coater for the taught advantage of providing a wind shielding means upstream of a curtain coater - increasing uniformity of the curtain applied to the web.

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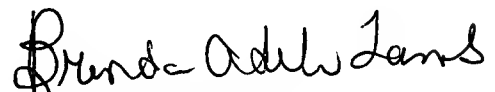
Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al in view of Migamoto.

Nakamura et al is applied for the reasons noted above but fails to teach a pressure differential device arranged between the first and second curtain coater. However, Nakamura et al teaches providing a wind shielding plate upstream of the curtain to prevent disturbance of the free fall curtain. Therefore, it would have been obvious to modify the Nakamura et al by providing a wind shielding means such as taught by Miyamoto between the first and second curtain coater and the Miyamoto wind shielding means is a pressure differential device which would provide a positive pressure to the web upstream of the Nakamura et al second curtain coater for the taught advantage of providing a wind shielding means upstream of a curtain coater - increasing uniformity of the curtain applied to the web.

Any inquiry concerning this communication should be directed to Brenda Lamb at telephone number 703 308-2056. The examiner can normally be reached on Monday and Wednesday through Friday with alternate Tuesdays off.

Examiner Lamb/ng

December 27, 2002


BRENDA A. LAMB
PRIMARY EXAMINER
GROUP 1300